



Effect of Tax and Customs Privileges on Increasing Investment Activity of Special Economic Zones

¹ Jasur Umirzoqov

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¹ PhD student of Tashkent Institute Finance

Abstract: The article provides an econometric analysis of the activities of special economic zones in the country. By analyzing the impact of tax and tax incentives, which are important factors influencing the investment activity of economic zones, descriptions have been developed to increase investment activity in these industrial zones.

Keywords: investment, special economic zone, investment processes, tax and customs benefits, investment activity, profit tax, value added tax, tariff and notarial mechanisms, export

Introduction

In the context of globalization of financial flows worldwide, the activation of investment in the economy is one of the important directions of investment policy of each state. Many financial mechanisms and tools are currently being used in this direction. In particular, special attention is paid to increasing the investment activity of these zones by creating special economic zones in the "driver" sectors in areas with high investment and economic potential. The World Investment Report, published annually by the United Nations Conference on Trade and Development (UNCTAD), states: "Special economic zones are widely used in most developing and developed economies. . The flow of investment into the economy will be intensified through the support of financial and regulatory incentives and infrastructure development initiatives by governments in these geographically limited areas. Today, there are more than 5,400 special economic zones in 147 countries, but the number of these zones was close to 4,000 5 years ago. It should be noted that the growing trend of investment activity in special economic zones is responsible for a new wave of global industrial policy and growing competition in the international mobility of investment.

Literature review. We see that the process of formation and development of special economic zones, the formation and development of their investment activity because of economic processes and integration trends which take place around the world and the theoretical views relating to them are also different. The content and essence of special economic zones, their organization, a number of scientists have been actively involved in conducting research on the basis of foreign experience. In particular, in the research of economists T. Farole and F. Dobrogonov, the development of investment processes associated with capital movements can help developing countries acquire additional consumer markets and can create a chain of unemployment and added value for developing countries.

Many economists point out that the role of countries in international rankings has a significant impact on the investment activity of special economic zones. In particular, according to A.Bárcena, L.López, M.Dirven, S.Malchik, the scientific-analytical manual "Foreign Investment in Latin America and the Caribbean" analyzes the role of Latin American countries in international rankings, their ranking in the free economic zones in the region, the impact on foreign investment inflows was assessed. In addition, the sharp increase in illicit income in offshore zones in the region has negatively affected the investment activity of special economic zones in Latin American countries (Argentina, Brazil, Mexico) [3].

H. Khamroev, one of the scientists, who conducted a comprehensive study on increasing the economic potential of the regions through the development of special economic zones and their investment activity, said that "We do not have all the mechanisms to attract investment, accepted in many countries around the world. Many organization leaders prefer not to assume any economic responsibilities while attracting financial resources from abroad. Therefore, it is necessary to establish the status of investment banks in the economic zones by law and organize a preferential business process at the outset. Bunda:

first, to increase the activity of the state in the period of ensuring the investment process, ie to increase the level of investment value in the development of state guarantees;

second, to legalize the conditions that ensure the inflow of investment into the economy;

third, strengthening and developing the role of the banking community in investment activities [4].

Research methodology. The article discusses the investment activity of special economic zones and the analysis of tax and customs benefits affecting them through the general econometric model of OLS (small squares method) [7]. The results of the analysis were examined under Gauss-Markov conditions [11].

During the study, we made an econometric analysis of the impact of tax and customs benefits on the investment activity of special economic zones. In doing so, we used aggregate data on the volume of investments (INV) in special economic zones for 14 years, ie in 2008-2021, tax (TP) and customs (CP) benefits for participants in special economic zones.

In the econometric analysis of indicators affecting the investment activity of special economic zones, we use the following aggregate data:

Table 1 Investments in special economic zones and tax and customs benefits provided to them [5]

Year	The volume of investments in special economic zones, mln. doll. (Y)	Privileges applied for special economic zones, (x1, x2)	
		Tax benefits, bln. sum (x1)	Customs benefits, bln. sum (x2)
2008	20,8	10,8	5,9
2009	35,7	25,3	12,7
2010	41,1	56,7	39,7
2011	18,2	85,4	86,4
2012	15,72	101,7	93,5
2013	33,71	72,3	49,7
2014	140,53	63,8	107,3
2015	98,31	97,1	75,6
2016	66,5	165,7	95,4
2017	49,18	88,2	88,3
2018	791,34	35,4	884,4
2019	749,35	89,5	759,9
2020	416,81	0	40,8
2021	541,96	563,2	38,2

Analysis and results. At present, 21 free economic zones have been established in the Republic of Uzbekistan as a separate type of special economic zones. Of these, 12 specialize in industry, 7 in pharmaceutical development, and two in tourism and agriculture. There are also 2019 youth industrial and business zones, more than 200 small industrial zones. So far, 375 projects worth \$ 2.167 billion have been commissioned in these free economic zones, including \$ 737.7 million in foreign direct investment and the creation of 30.6 thousand new jobs. The direct investments disbursed in the framework of the implemented projects are mainly from strategic partner countries, in particular, the People's Republic of China, Turkey, Singapore, Switzerland and the United Kingdom. At the same time, the directorates of the free economic zone are working to attract the initiators of 174 promising investment projects worth \$ 1.8 billion. So far this year, 58 projects worth \$ 335.1 million have been implemented in free economic zones, and the participants have produced goods worth 8.5 trillion soums, of which \$ 175.1 million were exported.

The following are descriptive statistics of the indicators for which econometric analysis is performed during the study:

Variable	Obs	Mean	Std. Dev.	Min	Max
INV	14	215.6357	283.5689	15.7	791.3
TP	14	103.9357	138.8941	0	563.2
CP	14	169.8429	279.2103	5.9	884.4

Picture 1. Visual statistics of indicators¹

From the descriptive statistics of the above figures, it is clear that in 2012, the least amount of investment was made in special economic zones. This situation can be explained by the establishment in 2008 of the first free economic zone "Navoi" in our country. Also, the unused period of tax benefits falls on 2020. It should be noted that before the adoption of the Law "On Special Economic Zones" investors who received the status of participants of free economic zones were issued Decree of the President of the Republic of Uzbekistan dated October 26, 2016 No PF-4853 "On additional measures to activate and expand free economic zones". with exemptions from taxes and customs duties. However, by the Decree of the President of the Republic of Uzbekistan dated June 19, 2020 No. PF-6011 "On the abolition of certain tax and customs benefits", all tax and customs benefits were canceled ahead of schedule. This situation also has a negative impact on the investment activity of special economic zones, which led to a decrease in investments in these zones in 2020 by \$ 332.5 million or 55.6% compared to 2019. Also, as a result of the abolition of exemptions this year, participants of special economic zones in practice could not benefit from taxes and customs duties on imports of equipment, raw materials, supplies and components, corporate income tax exemptions.

The role of incentives, in particular tax and customs benefits, is important for increasing the investment activity of special economic zones. This can be seen from the results of the following correlation analysis.

	INV	TP	CP
INV	1.0000		
TP	0.2527	1.0000	
CP	0.8106	-0.1297	1.0000

Picture 2. Correlation table of indicators²

¹ Stata дастури оркали муаллиф томонидан тузилган.

According to the analysis, there is a 25 percent correlation between investment in special economic zones and tax incentives, while other factors are assumed to be unchanged, and an 81 percent correlation between customs benefits. Therefore, it is expedient to increase the investment activity of special economic zones through these tariff and non-tariff mechanisms. In addition, the fact that special economic zones are mainly engaged in import activities has strengthened the dependence of customs preferences on their investment activity. This, in turn, negatively affects the production and export of finished products with high added value through the production of finished products. In this regard, by increasing the importance of tax incentives, special economic zones can stimulate investment activity and the production of finished products with high added value.

In addition, during the study, we assessed the impact of tax and customs benefits on investment activity in special economic zones based on the results of a regression analysis conducted by Stata.

Source	SS	df	MS	Number of obs	=	14
Model	822995.15	2	411497.575	F(2, 11)	=	20.36
Residual	222352.182	11	20213.8347	Prob > F	=	0.0002
				R-squared	=	0.7873
				Adj R-squared	=	0.7486
Total	1045347.33	13	80411.3332	Root MSE	=	142.18

INV	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
TP	.743193	.2863222	2.60	0.025	.1130022 1.373384
CP	.8711801	.1424319	6.12	0.000	.5576897 1.184671
_cons	-9.572308	55.69066	-0.17	0.867	-132.1466 113.002

Picture 3. Results of regression analysis³

The results of the regression analysis show that the R-squared determination coefficient is 0.78. This, in turn, means that 78% of tax and customs benefits affect the investment activity of special economic zones, as well as 22% of other factors affect the investment activity of industrial zones.

Based on the results of the regression analysis, we construct the general econometric model of OLS (ordinary least squares), which reflects the impact of tax and customs benefits on investment activity in special economic zones:

$$y = 0,74 TP + 0,87 CP - 95$$

It can be said that the increase in the amount of tax benefits (TP) for special economic zones by 1 unit through the developed OLS model will have a positive impact on the increase in investment in these zones by \$ 0.74 million. In addition, the increase in customs duties by 1 unit will lead to an increase in investment in special economic zones by \$ 0.87 million.

Above, we test the reliability of an econometric model constructed using the Stata program through several tests. When the reliability of the model was checked by the f test, it was found that the actual value of f was 20.36. The probability value of the probe is 0.0002. Based on the properties of the econometric models, the probability that the probability is less than 0.05 f test means that the model

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reliability of the test is correct. So, our model is considered reliable. We also examine our structured model in terms of parameters. To do this, we use the t test. Its value is 2.60 and -0.17, respectively, according to the parameters. The probability values are 0.025 and 0.000, respectively. Based on the properties of the econometric models, the probability that the probability is less than 0.05 t test means that the reliability of the test model is correct. Hence, the parameters of this model are also reliable. We can check the results of the econometric analysis performed on the basis of Gauss-Markov conditions as follows:

1. The results of this analysis show that the number of observations is greater than the number of parameters, ie the number of observations is 15 and the number of parameters is 3. This corresponds to the Gauss-Markov condition 1 of the model reliability test.
2. According to condition 2 of the Gauss-Markov conditions, the sum of empirical data is required to be equal to the sum of model data.

Variable	Obs	Mean	Std. Dev.	Min	Max
model	14	215.6357	251.6095	3.594139	787.2084
INV	14	215.6357	283.5689	15.7	791.3
TP	14	103.9357	138.8941	0	563.2
CP	14	169.8429	279.2103	5.9	884.4

Picture4. The results of checking the compliance of Gauss-Markov conditions with condition 2⁴

In the case under consideration, the sum of the empirical data was $Y = 215.6$ and equal to the model values, i.e., this condition was also satisfied.

3. According to condition 3 of the Gauss-Markov conditions, the residues must not be associated with factor symbols. If the residuals and factor characters are interrelated, it is called a heteroscedastic state.

If the residuals and factor characters are not interrelated, it is called a homoscedastic state or is called homogeneity. This condition can be checked by means of a graph, correlation table or tests. We test these condition requirements using one of the most common tests - the White test Breusch Pagan test. The following test results were obtained when the results of the analysis and the reliability of the structured model were initially tested on the basis of the Breusch-Pagan (White test) test under Gauss Markov's

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of INV

conditions: $\chi^2(1) = 2.18$
 $\text{Prob} > \chi^2 = 0.1401$

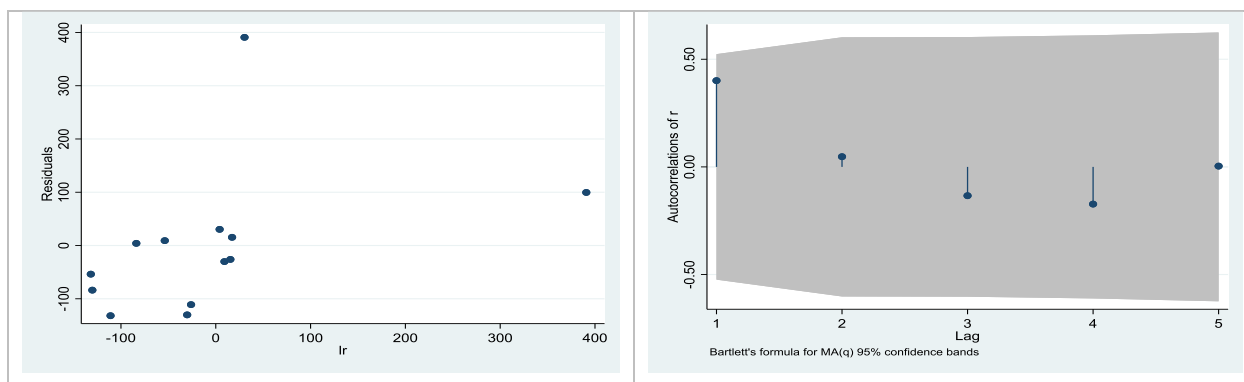
Picture 5. Breusch-Pagan (White test) test results⁵

According to test results, $p > 0.05$. That is, the remains are not cross-linked with the model (there is homoscedasticity). In this case, the alternative hypothesis (H1) is rejected and the main hypothesis (H0) is accepted. Thus, condition 3 of the Gauss-Markov condition was satisfied.

4. According to condition 4 of the Gauss-Markov conditions, the residues must not be cross-linked, i.e. they must be in a free state. In this case, the autocorrelation between the residues is checked. Detected in three cases: graphical and autocorrelation methods, Durbin Watson test.

⁴ Stata дастури оркали муаллиф томонидан тузилган.

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Picture 6. The results of graphical and autocorrelation analysis of Gauss-Markov conditions⁶

According to condition 4 of the Gauss-Markov conditions, the residues are relatively scattered on the graph. Also, the fact that the codes are in the confidence interval means that there is relatively no autocorrelation between the codes.

We also use the Durbin Watsin and Breusch-Godfrey LM tests to test the correlation between the fossils. The results of the Durbin Watsin test [12,13] of the relationship between the residues were determined as follows by means of the Stata program:

Breusch-Godfrey LM Durbin-Watson d-statistic(3, 14) = 1.152567

lags(p)	
1	

Picture 7. Breusch-Godfrey LM test results⁷

According to the results of this test, less than $p < 0.01$, we reject the H_0 hypothesis and accept the H_1 hypothesis.

5. Under condition 5 of the Gauss-Markov conditions, the factors are required to be unrelated. In this case we use the VIF (Variance inflation factor) test [8].

Variable	VIF	1/VIF
CP	1.02	0.983169
TP	1.02	0.983169
Mean VIF	1.02	

Picture 8. VIF test results⁸

The results of the analysis suggest that there is multicollinearity between factor characters. However, from a practical point of view, if we consider that the coefficients are statistically significant, it is reasonable to assess the correlation between the factors as a secondary aspect.

6. The normal distribution of the residues is studied by examining the results of the analysis under

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condition 6 of the Gauss-Markov conditions. According to him, we use Shapiro-Wilk W and Skewness / Kurtosis tests [10].

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
r	14	0.77742	4.119	2.787	0.00266

. sktest r

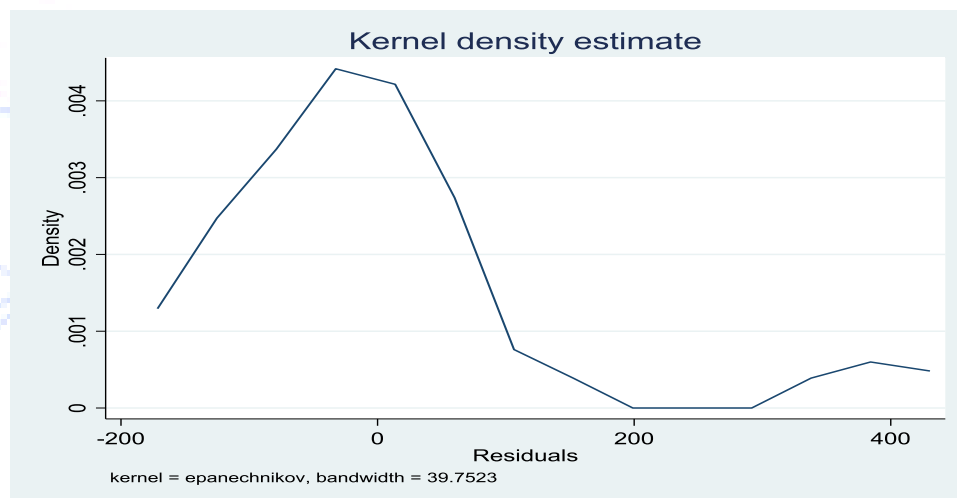
Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	joint adj chi2(2)	Prob>chi2
r	14	0.0013	0.0029	13.78	0.0010

Picture 9. Results of Shapiro-Wilk W and Skewness / Kurtosis tests⁹

Based on the results of the Shapiro-Wilk W and Skewness / Kurtosis tests under Gauss-Markov conditions, we reject the H0 hypothesis and accept the H1 hypothesis. That is, the residues are not normally distributed. This is due to the fact that 14 years of results have been obtained on the activities of special economic zones.

Also, a graphical representation of condition 6 of the Gauss-Markov terms is given below.



Picture 10. Graphical representation of condition 6 of the Gauss-Markov conditions¹⁰

According to him, because the remains are not normally distributed, the graphic image is not completely symmetrical. In this case, too, we reject the H0 hypothesis and accept the H1 hypothesis.

Based on the results of the study, the impact of tax and customs benefits on investments in special economic zones can be summarized as follows, summarizing a number of models developed in terms of econometric assessment:

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Variable	Model1	Model2	Model3
TP	.51598928		.74319303**
CP		.82321632***	.87118014***
_cons	162.006	75.818302	-9.5723083
N	14	14	14
r2	.06387509	.65701238	.78729349
aic	199.89742	185.84066	181.15173
bic	201.17554	187.11877	183.0689

legend: * p<.1; ** p<.05; *** p<.01

Picture 11. OLS model analysis results¹¹

According to the results of econometric analysis using the Stata program, the statistical significance of 2 factors (tax (TP) and customs (CP)) benefits) affecting the volume of investments in special economic zones was analyzed on a scale of 1 ***, 5 ** and 10 * percent. Accordingly, the effect of 1 variable in models 1 and 2 and 2 variables in model 3 were analyzed. In this regard, the results of the analysis are of statistical significance. This can be interpreted by choosing the best model. That is, according to the test results that determine the best model specification, such as r2, aic, bic, we choose the best model because the performance of model 3 is smaller than other models:

$$y = 0,74TP^{**} + 0,87CP^{***} - 9,77$$

The statistical significance of Model 3 according to the established regression equation is that tax benefits are statistically significant at 5%, and the increase in tax benefits by 1 unit will increase the volume of investments in special economic zones by \$ 0.74 million. In addition, customs benefits, which are the second variable, are statistically significant at 1%, and the increase of this benefit by 1 unit will have a positive impact on increasing investment in special economic zones by \$ 0.87 million.

Based on the results of the econometric analysis, it can be said that tax and customs benefits are important in increasing the investment activity of special economic zones. By increasing the efficiency of applying these benefits, it is possible to increase the volume of investments in special economic zones.

In conclusion, according to the results of the econometric analysis, the positive impact of tax and customs benefits is important in increasing the investment activity of special economic zones. The results of econometric analysis of the impact of tax and customs benefits on the investment activity of special economic zones show that the volume of investments in these zones is directly affected by tax and customs benefits. However, as noted in the previous chapter, the early abolition of exemptions from all taxes and customs duties by the Decree of the President of the Republic of Uzbekistan No. PF-6011 of June 19, 2020 had a significant negative impact on investment activity. Also, Article 39 of the newly adopted Law "On Special Economic Zones" states that "the amount of value added tax paid to participants of the special economic zone will be reimbursed from the national budget" and this procedure will be determined by the Cabinet of Ministers. However, this procedure is not accepted due to the negative conclusion that the new edition contradicts the norms of the Tax Code. Therefore, in order to eliminate inconsistencies in this legislation, it is advisable to make appropriate changes to the regulations to restore the benefits of taxes and customs duties granted to participants of free economic zones. To this end, the participants of special economic zones were offered to apply the rate of profit at 0% for the period of application of the benefits

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provided for in the first part of Article 473 of the Tax Code of the Republic of Uzbekistan, subject to the following conditions. According to him, the following conditions are justified for the application of benefits:

- The volume of investments should be 3.0 million US dollars;
- Income from the export of goods (services) must be at least 50% of total income.

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